

Animal Coverings



Adaptations; Classification

Time Frame: 30-45 minutes

Grade: K

Overview

In this lesson, students will have the opportunity to use photographs and related tactile items to compare the skin and coverings of various Arizona wildlife species. Based on these observations, students will organize and classify the items into different groups.

Author: Kindergarten teacher (wishes to remain anonymous)

Essential Questions

- What adaptations help animals survive?
- Why is classification an important tool for science and learning?

Objectives

- Use multiple senses to identify key characteristics of different animal coverings.
- Explain the purpose of different animal coverings using new vocabulary and descriptive words.
- Explain the reasons for grouping certain objects together.

Arizona and National Academic Standards

Arizona Science

- S1.C1.PO1
- S1.C3.PO1
- S4.C3.PO1

Arizona College and Career Ready – ELA

- RL.K.1
- SL.K.4

Next Generation Science

- K-LS1-1

Association of Fish and Wildlife Agencies

- 1.5.1
- 1.7.1

Materials and Resources

- A collection of skin coverings (fur, scales, feathers, and shells) from various Arizona animals
- Photographs of Arizona animals
- Whiteboard or chalkboard
- Markers or chalk
- Book: *Animals Should Definitely Not Wear Clothing* by Judi Barrett



Teacher Preparation

- Gather a variety of animal coverings.* Be sure to follow all laws and regulations if you are collecting animal parts from the wild. In addition, be aware of cultural issues related to the use of animals and their parts in the classroom, particularly with Native Americans.
- Gather a collection of photographs of Arizona animals.* They can be laminated for long-term use. Some pictures can be found at www.azgfd.gov.
- Divide the whiteboard or chalkboard into five columns. Label the columns with the following headings: fur, feathers, scales, skin, and shells.

* The Bone Box Resource Trunks available from the Arizona Game and Fish Department provide access to skins and pictures of common Arizona mammals.

Background Information

Scales cover the bodies of most lizards, bony fish, and snakes. The size, arrangement, and shape of the scales can vary. The scales usually overlap to provide a layer of protection over the skin. Some other animals, like beavers, muskrats, and some mice and rats have scaly tails with hairs protruding. Often the age of a fish can be determined by counting the rings on the scales.

Feathers serve a number of purposes. They help birds fly and keep warm and dry. Birds have three types of feathers. Down feathers are the smallest and the first ones to grow. They keep the bird warm. Flight feathers are made of a long, hollow shaft with barbs on either side. The barbs are held together by hundreds of very small hooks, much like Velcro. Body feathers, or semiplumes, are smaller and fluffier than the flight feathers. These are found under the flight feathers.

Fur, bristles, or hair covers most mammals. Some, like elephants, have a very small amount of hair.

Shells are found on both ocean and land animals. Clams, oysters, and snails belong to a common group of shelled invertebrates called mollusks. Turtles and tortoises are the only reptiles that have shells.

Procedures

1. Have students gather around and observe the different animal coverings that are available. Ask students to predict how they would feel if they touched them.
2. Give the students some time to gently touch each item. Ask them to describe what they feel.
3. While discussing with the students, be sure to introduce the names of the different covering types: fur, feathers, scales, skin, and shells. Are there certain feelings or textures that match certain animal coverings?
4. Show pictures of different Arizona animals. For each animal, ask the class to identify what type of covering it has. Tape that picture under the appropriate covering category on the whiteboard.
5. Point out some of the protective clothing that the students may be wearing. This might include shoes, hats, coats, and sweaters. Ask students why they wear these types of items.
6. Ask students to explain why animals do not need to wear protective clothing. Discuss how the different types of coverings protect and help each animal.
7. Read *Animals Should Definitely Not Wear Clothing* by Judi Barrett. Ask the students to summarize the book and explain how it relates to the discussion.



Differentiated Instruction

Extensions:

- Provide each student with a new animal picture, different from all the other students. Ask the student to describe the picture while the class tries to guess the animal.
- Have students draw a picture of their favorite animal and then collect common household materials that could represent the animal covering. Have them glue those materials to their picture.

Modifications:

- Instead of providing the items at the beginning of the class, have each student bring in any animal covering they may have. Ask them to describe it and have other students guess what animal it might belong to.
- Students can work individually or in small groups to classify the animal pictures into the appropriate covering categories.

Reflection

Use the space below to reflect on the success of the lesson. What worked? What didn't? What changes would you make? These notes can be used to help the next time you teach the lesson. In addition, the Department would appreciate any feedback. Please send your comments to **focuswild@azgfd.gov**.